



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-6896; Directorate Identifier 2016-NM-016-AD; Amendment 39-18805; AD 2017-04-10]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Airbus Model A318-111, and -112 airplanes; Model A319-111, -112, -113, -114, and -115 airplanes; Model A320-211, -212 and -214 airplanes; and Model A321-111, -112, -211, -212, and -213 airplanes. This AD was prompted by a report of a production quality deficiency on the inner retainer installed on link assemblies of the aft engine mount, which could result in failure of the retainer. This AD requires an inspection for, and replacement of, all non-conforming aft engine mount retainers. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For Airbus service information identified in this final rule, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: account.airworth-eas@airbus.com; Internet: <http://www.airbus.com>.

For Goodrich service information identified in this final rule, contact Goodrich Corporation, Aerostructures, 850 Lagoon Drive, Chula Vista, CA 91910-2098; telephone: 619-691-2719; email: jan.lewis@goodrich.com; Internet: <http://www.goodrich.com/TechPubs>.

You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-6896.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-6896; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation,

Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone: 425-227-1405; fax: 425-227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus Model A318-111, and -112 airplanes, Model A319-111, -112, -113, -114, and -115 airplanes, Model A320-211, -212 and -214 airplanes, and Model A321-111, -112, -211, -212, and -213 airplanes. The NPRM published in the Federal Register on May 31, 2016 (81 FR 34287) (“the NPRM”). The NPRM was prompted by a report of a production quality deficiency on the inner retainer installed on link assemblies of the aft engine mount, which could result in failure of the retainer. The NPRM proposed to require an inspection for, and replacement of, all non-conforming aft engine mount retainers. We are issuing this AD to detect and correct non-conforming retainers of the aft engine mount. This condition could result in the loss of the locking feature of the nuts of the inner and outer pins; loss of the pins will result in the aft mount engine link no longer being secured to the aft engine mount, possibly resulting in damage to the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness

Directive 2016-0010R1, dated February 16, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Model A318-111, and -112 airplanes; Model A319-111, -112, -113, -114, and -115 airplanes; Model A320-211, -212, and -214 airplanes; and Model A321-111, -112, -211, -212, and -213 airplanes. The MCAI states:

During in-service inspections, several aft engine mount inner retainers, fitted on aeroplanes equipped with CFM56-5A/5B engines, have been found broken. The results of the initial investigations highlighted that two different types of surface finish had been applied (respectively bright and dull material finishes), and that dull finish affects the strength of the retainer with regard to fatigue properties of the part. The pins which attach the engine link to the aft mount are secured by two nuts, which do not have a self-locking feature; this function is provided by the retainer brackets. In case of failure of the retainer bracket, the locking feature of the nuts of the inner and outer pins is lost; as a result, these nuts could subsequently become loose.

In case of full loss of the nuts, there is the potential to also lose the pins, in which case the aft mount link will no longer be secured to the aft engine mount. The same locking feature is used for the three link assemblies of the aft mount.

This condition, if not detected and corrected, could lead to in-flight loss of an aft mount link, possibly resulting in damage to the aeroplane and/or injury to persons on the ground.

To address this potential unsafe condition, EASA issued AD 2013-0050 [which corresponds to FAA AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014)] to require a detailed inspection (DET) of the aft engine mount inner retainers and the replacement of all retainers with dull finish with retainers having a bright finish. Since that [EASA] AD was issued, inspection results showed that the main cause of crack initiation remains the vibration dynamic effect that affects both retainers, either

with "dull" or "bright" surface finishes. The non-conforming "dull" surface's pitting is an aggravating factor. Consequently, EASA issued AD 2015-0021 [which corresponds to FAA NPRM Docket No. FAA-2015-3632; Directorate Identifier 2015-NM-023-AD (80 FR 55798, September 7, 2015)], retaining the requirements of EASA AD 2013-0050, which was superseded, and requiring repetitive DET of all aft engine mount inner retainers and, depending on findings, their replacement.

Since that [EASA] AD was issued, a production quality deficiency was identified by Airbus and UTAS (formerly Goodrich Aerostructures, the engine mount retainer manufacturer) on the delivery of the inner retainer, Part Number (P/N) 238-0252-505, installed in the three Link assemblies of the engine mount fitted on CFM56-5A/5B engines. Airbus issued AOT A71N011-15 and SB A320-71-1070 providing a list of affected parts and applicable corrective actions.

Consequently, EASA issued AD 2016-0010, retaining the requirements of EASA AD 2015-0021, which was superseded, and in addition requiring the identification and replacement of all non-conforming aft engine mount inner retainers.

Since that [EASA] AD was issued, AOT A71N011-15 was revised, removing errors and reducing the list of affected parts.

For the reason described above, this [EASA] AD is revised, adding reference to the revised AOT, and removing [EASA] AD appendixes, which content is included in the referenced Airbus documentation.

This [EASA] AD is still considered to be an interim action, pending development and availability of a final solution.

This AD requires an inspection for, and replacement of, all non-conforming aft engine mount retainers. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-6896.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Remove Part Identification Requirement

Delta Airlines (DAL) requested that we remove the requirement to do an inspection to determine the part number of each engine mount inner retainer specified in paragraph (g) of the proposed AD. DAL stated that Airbus Service Bulletin A320-71-1070, dated November 23, 2015, does not specify identifying the part number. DAL stated that identifying the part number has no value in determining the affected population of non-conforming retainers. DAL also requested that we revise the records review language in paragraph (g) of the proposed AD to reference the criteria in paragraphs (g)(1), and (g)(2), and (g)(3) of the proposed AD instead of referring to the part number.

We do not agree with DAL's request to remove the inspection required by paragraph (g) of this AD. However, we do agree that the inspection language should be clarified. Paragraph (g) of this AD, which corresponds with the MCAI, requires doing actions in accordance with Airbus Service Bulletin A320-71-1070, dated November 23, 2015, which specifies to determine if there is a non-compliant engine mount inner retainer. We have revised paragraph (g) of this AD accordingly.

Request to Clarify Engine Mount Retainer

DAL requested that we clarify in paragraph (g) of the proposed AD which engine mount retainer (forward or aft) is to be inspected.

We agree to clarify. We have revised paragraph (g) of this AD to specify the aft engine mount inner retainer.

Requests to Use the Airplane Maintenance Manual (AMM)

DAL requested that we include an option for using the AMM to accomplish the required actions. DAL stated that paragraph (g) of the proposed AD specifies that the replacement must be done in accordance with the service information specified in paragraph (h)(1), (h)(2), or (h)(3) of the proposed AD. DAL recommended that operators be allowed to take credit for the replacement through other means such as the AMM.

We do not agree with DAL's request. An AMM is a customized document that varies for each operator and depends on the airplane configuration. In addition, the AMM might not include all required compliance steps to mitigate the risk addressed in this AD. We have not changed this AD in this regard. However, under the provisions of paragraph (l) of this AD, we will consider requests for approval of alternative methods of compliance if sufficient data are submitted to substantiate that the new methods would provide an acceptable level of safety.

Requests to Revise Part Installation Prohibition

DAL requested that we revise paragraph (j) of the proposed AD to prohibit installation of an engine mount inner retainer in lieu of "any part." DAL asserted that if not changed, paragraph (j)(1) of the proposed AD will prohibit the installation of all aft

mounts identified in table 1 of Airbus Alert Operators Transmission (AOT) A71N011-15, Revision 01, dated February 1, 2016.

We agree with DAL's request. We have revised paragraph (j) of this AD to prohibit installation of certain engine mount inner retainers.

DAL requested that we revise paragraph (j)(3) of the proposed AD, which prohibits installation of parts delivered through an unidentified Purchase Order (PO) to provide more specific information for the identification of non-conforming aft engine mount inner retainers. DAL suggested that the proposed AD specify using the original equipment manufacturer (OEM) new part release certificate as a mean of verifying conformity for each aft engine mount inner retainer. DAL explained that it is suggesting this action because non-conforming field parts could be sold on the surplus market prior to the release of the AD under a non-OEM purchase order number.

We do not agree with DAL's request to revise paragraph (j)(3) of the proposed AD. We have determined that paragraph (j)(3) of this AD clearly prohibits installation of parts delivered through an unidentified PO and corresponds with the MCAI. We are unaware of any non-conforming parts delivered through an unidentified PO that have been sold on the surplus market. However, if those parts exist, then they are prohibited from installation as of the effective date of this AD. We have not changed this AD in this regard.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the

changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information under 1 CFR part 51

We reviewed the following service information. This service information describes procedures for replacement of all non-conforming aft engine mount retainers.

- Airbus Service Bulletin A320-71-1070, dated November 23, 2015. This document also describes procedures for an inspection for non-conforming aft engine mount retainers.
- Airbus Alert Operators Transmission (AOT) A71N011-15, Revision 01, dated February 1, 2016. This document also contains the affected purchase order numbers used in identifying the affected parts.
- Goodrich Service Bulletin RA32071-165, dated October 9, 2015. This document also contains the affected part numbers.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 959 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	Up to 4 work-hours X \$85 per hour = \$340	\$0	Up to \$340	Up to \$326,060

We estimate the following costs to do any necessary replacements that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement	Up to 36 work-hours X \$85 per hour = \$3,060	\$10,000	Up to \$13,060

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2017-04-10 Airbus: Amendment 39-18805. Docket No. FAA-2016-6896; Directorate Identifier 2016-NM-016-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the Airbus airplanes identified in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category, all manufacturer serial numbers.

(1) Airbus Model A318-111 and -112 airplanes.

(2) Airbus Model A319-111, -112, -113, -114, and -115 airplanes.

(3) Airbus Model A320-211, -212, and -214 airplanes.

(4) Airbus Model A321-111, -112, -211, -212, and -213 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 71, Powerplant.

(e) Reason

This AD was prompted by a report of a production quality deficiency on the inner retainer installed on link assemblies of the aft engine mount, which could result in failure of the retainer. We are issuing this AD to detect and correct non-conforming retainers of the aft engine mount. This condition could result in loss of the locking feature of the nuts of the inner and outer pins; loss of the pins will result in the aft mount engine link no longer being secured to the aft engine mount, possibly resulting in damage to the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection and Replacement

Within 2 months after the effective date of this AD, do an inspection to determine if any non-compliant aft engine mount inner retainer is installed; and within 2 months after the effective date of this AD, replace each part that meets any of the criteria specified in paragraph (g)(1), (g)(2), or (g)(3) of this AD. Do the inspection in accordance with the service information specified in paragraph (h)(1) of this AD. Do the replacement in accordance with the service information specified in paragraph (h)(1), (h)(2), or (h)(3) of this AD. A review of airplane maintenance records is acceptable in lieu of the inspection required by this paragraph, if it can be conclusively determined that there are no non-compliant aft engine mount inner retainers installed on the airplane.

(1) An aft engine mount inner retainer from an aft engine mount having a serial number listed in table 1 of Airbus Alert Operators Transmission (AOT) A71N011-15, Rev 01, dated February 1, 2016.

(2) An aft engine mount inner retainer installed on an airplane between the first flight of the airplane or March 1, 2015 (whichever occurs later), and the effective date of this AD, and that can be identified by a purchase order (PO) listed in table 2 of Airbus AOT A71N011-15, Rev 01, dated February 1, 2016.

(3) An aft engine mount inner retainer installed on an airplane between the first flight of the airplane or March 1, 2015 (whichever occurs later), and the effective date of this AD, and that cannot be identified by a PO.

(h) Service Information for Actions Required by Paragraph (g) of this AD

Accomplish the replacement required by paragraph (g) of this AD in accordance with the service information specified in paragraph (h)(1), (h)(2), or (h)(3) of this AD.

(1) The Accomplishment Instructions of Airbus Service Bulletin A320-71-1070, dated November 23, 2015.

(2) Paragraph 4.2.2, "Requirements," of Airbus AOT A71N011-15, Revision 01, dated February 1, 2016.

(3) The Accomplishment Instructions of Goodrich Service Bulletin RA32071-165, dated October 9, 2015.

(i) Credit for Previous Actions

This paragraph provides credit for the applicable actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Airbus AOT A71N011-15, Revision 01, dated February 1, 2016.

(j) Parts Installation Prohibition

As of the effective date of this AD, no person may install an aft engine mount retainer that meets any of the criteria specified in paragraph (j)(1), (j)(2), or (j)(3) of this AD on any airplane.

(1) A part from the aft engine mount having a serial number listed in table 1 of Airbus AOT A71N011-15, Rev 01, dated February 1, 2016.

(2) A part delivered through a PO listed in table 2 of Airbus AOT A71N011-15, Rev 01, dated February 1, 2016.

(3) A part delivered through an unidentified PO.

(k) Special Flight Permits

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

(l) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone: 425-227-1405; fax: 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved

AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) Required for Compliance (RC): If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2016-0010R1, dated February 16, 2016, for related information. This MCAI may be

found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-6896.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (n)(3) and (n)(5) of this AD.

(n) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Airbus Service Bulletin A320-71-1070, dated November 23, 2015.

(ii) Airbus Alert Operators Transmission (AOT) A71N011-15, Revision 01, dated February 1, 2016.

(iii) Goodrich Service Bulletin RA32071-165, dated October 9, 2015.

(3) For Airbus service information identified in this AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: account.airworth-eas@airbus.com; Internet: <http://www.airbus.com>.

(4) For Goodrich service information identified in this AD, contact Goodrich Corporation, Aerostructures, 850 Lagoon Drive, Chula Vista, CA 91910-2098; telephone: 619-691-2719; email: jan.lewis@goodrich.com; Internet: <http://www.goodrich.com/TechPubs>.

(5) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(6) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 7, 2017.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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